SEQUENCE LISTING

				SECOFNCE PISII	DM.	
(1)	GENERA	L INFO	RMATION:			
	(i) APPLICANT:		Yechezkel	. Kashi et al.		
	(ii) TITLE OF INVENTION:		HYPERE IN PRO	ABUNDANT, WELL DISTRIBUTED AND HYPERPOLYMORPHIC SIMPLE SEQUENCE REPEATS IN PROKARYOTE GENOMES AND USE OF SAME FO PROKARYOTE CLASSIFICATION AND TYPING		
	(iii)	NUMB!	ER OF SEQUENCES:	42		
			ESPONDENCE ADDRESS	:		
	, ,	(A)	ADDRESSEE:		riedman c/o Anthony Castorina	
		(B)	STREET:	2001 Jeffe	erson Davis Highway, Suite 207	
		(C)	CITY:	Arlington		
		(D)	STATE:	Virginia		
		(E)	COUNTRY:	United Sta	ates of America	
		(F)	ZIP:	22202		
	(v)	COMP	UTER READABLE FORM	1:		
		(A)	MEDIUM TYPE:	1.44 meg	abyte, 3.5" microdisk	
		(B)	COMPUTER:	Twinhead	® Slimnote-890TX	
		(C)	OPERATING SYST	EM: MS DOS V	ersion 6.2,	
				Windows ve	ersion 3.11	
		(D)	SOFTWARE:	Word for	Windows version 2.0 converted to	
				an ASCI f	ile	
	(vi)	CURR	ENT APPLICATION DA	:ATA		
		(A)	APPLICATION NU	MBER:		
		(B)	FILING DATE:			
		(C)	CLASSIFICATION	:		
	(vii) PRIOR APPLICATION DATA:					
		(A)	APPLICATION NU	MBER:		
	(B) FILING DATE:					
	(viii) ATTORNEY/AGENT INFORMATI		ATION:			
		(A)	NAME:		Friedmam, Mark M.	
		(B)	REGISTRATION N		33,883	
		(C) REFERENCE/DOCKET			910/8	
	(ix) TEL		COMMUNICATION INFO	ORMATION:		
		(A)			972-3-5625553	
		(B)			972-3-5625554	
		(C)	TELEX:			
(2)	TARODA	63 MT ON	FOR CEO ID NO.1.			
(2)	(i)		FOR SEQ ID NO:1: ENCE CHARACTERIST	TCC -		
	(1)	(A)	LENGTH:	23		
		(B)	TYPE:	nucleic acid		
		(C)	STRANDEDNESS:			
		(D)	TOPOLOGY:	linear		
	(xi)		JENCE DESCRIPTION:			
GATTT	• •		TAT TAC 23	000 10 10111		
0		0110 1111			*	
(2)	⊱ INFORI	MOITAN	FOR SEQ ID NO:2:			
	(i)		JENCE CHARACTERIST	ICS:		
	,	(A)	LENGTH:	21		
		(B)	TYPE:	nucleic acid		
		(C)	STRANDEDNESS:	single		
		(D)	TOPOLOGY:	linear		
	(xi)	SEQU	JENCE DESCRIPTION:	SEQ ID NO:2:		
CAATT	TACAG GA	TGTTC	AGT C 21			

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 TYPE: nucleic acid (B) STRANDEDNESS: single (D) TOPOLOGY: linear SEQUENCE DESCRIPTION: SEQ ID NO:3: (xi) AATTTATCCG GTGAATGTGG T 21 INFORMATION FOR SEQ ID NO:4: (2) SEQUENCE CHARACTERISTICS: (A) LENGTH: nucleic acid (B) TYPE: STRANDEDNESS: single (C) TOPOLOGY: linear (D) SEQUENCE DESCRIPTION: SEQ ID NO:4: (xi) CAACTTAATC TCGGGCTGAC 20 INFORMATION FOR SEQ ID NO:5: (2) SEQUENCE CHARACTERISTICS: LENGTH: 20 (A) nucleic acid TYPE: (B) STRANDEDNESS: single (C) linear (D) TOPOLOGY: SEQUENCE DESCRIPTION: SEQ ID NO:5: (xi) TACATGGCTG ATTATGCGG 20 INFORMATION FOR SEQ ID NO:6: (2) SEQUENCE CHARACTERISTICS: 21 (A) LENGTH: (B) nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear SEQUENCE DESCRIPTION: SEQ ID NO:6: TCGCTATGAA TATCTACTGA C 21 INFORMATION FOR SEQ ID NO:7: (2) SEQUENCE CHARACTERISTICS: (A) LENGTH: (B) TYPE: nucleic acid STRANDEDNESS: single (C) TOPOLOGY: linear (D) SEQUENCE DESCRIPTION: SEQ ID NO:7: (xi) GTCAGAGCAG ATCCAGAATG 20 INFORMATION FOR SEQ ID NO:8: (2) SEQUENCE CHARACTERISTICS: (i) (A) LENGTH: nucleic acid (B) TYPE: STRANDEDNESS: single (C) (D) TOPOLOGY: linear (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8: TCTACAGCAA ATGAACAATG 20 INFORMATION FOR SEQ ID NO:9: (2) SEQUENCE CHARACTERISTICS: LENGTH: (A) (B) nucleic acid TYPE: STRANDEDNESS: single (C) (D) TOPOLOGY: linear

SEQUENCE DESCRIPTION: SEQ ID NO:9: (xi) GGTCATCAGG TGAAATAATC 20

INFORMATION FOR SEQ ID NO:10: (2)

- SEQUENCE CHARACTERISTICS: (i)
 - LENGTH:

21

- (B) TYPE:
- nucleic acid
- (C) STRANDEDNESS: single
- TOPOLOGY: (D)

linear

SEQUENCE DESCRIPTION: SEQ ID NO:10: (xi) CGTCCTGATA GATAAAGTGT C 21

INFORMATION FOR SEQ ID NO:11: (2)

SEQUENCE CHARACTERISTICS: (i)

LENGTH:

(A)

- (B) TYPE:
- nucleic acid
- (C)

STRANDEDNESS: single

- TOPOLOGY: (D)
- linear
- SEQUENCE DESCRIPTION: SEQ ID NO:11: (xi)

CAATGGAACT TACCAATGAC 20

INFORMATION FOR SEQ ID NO:12: (2)

- SEQUENCE CHARACTERISTICS:
 - LENGTH: (A)

- (B) TYPE:
- nucleic acid
- STRANDEDNESS: single (C)
 - linear
- TOPOLOGY: (D) SEQUENCE DESCRIPTION: SEQ ID NO:12: (xi)

TACCGCGAAG AATTCAACAC 20

INFORMATION FOR SEQ ID NO:13: (2)

- SEQUENCE CHARACTERISTICS:
 - LENGTH: (A)

20

- TYPE: (B)
- nucleic acid
- STRANDEDNESS: single (C)
- (D) TOPOLOGY:
- linear
- SEQUENCE DESCRIPTION: SEQ ID NO:13: (xi) AGCATCAGCG CACAATGCAC 20

(2) INFORMATION FOR SEQ ID NO:14:

- SEQUENCE CHARACTERISTICS: (i)
 - (A) LENGTH:

- (B) TYPE:
- nucleic acid
- (C)

(D)

- TOPOLOGY:
- STRANDEDNESS: single linear
- SEQUENCE DESCRIPTION: SEQ ID NO:14: (xi) TGTATGCAGG_CTGGCACAAC 20

INFORMATION FOR SEQ ID NO:15: (2)

- SEQUENCE CHARACTERISTICS:
 - (A)

LENGTH:

- (B) TYPE:
- nucleic acid
- STRANDEDNESS: single (C)
- (D) TOPOLOGY:
- linear
- SEQUENCE DESCRIPTION: SEQ ID NO:15: (xi) ATAACGATCT CCATATCTAC 20
- INFORMATION FOR SEQ ID NO:16: (2)

```
SEQUENCE CHARACTERISTICS:
       (i)
                       LENGTH:
               (A)
                       TYPE:
                                      nucleic acid
               (B)
                       STRANDEDNESS: single
               (C)
               (D)
                       TOPOLOGY:
                                      linear
               SEQUENCE DESCRIPTION: SEQ ID NO:16:
        (xi)
CTCTATCAGC AACTTCTGCC 20
       INFORMATION FOR SEQ ID NO:17:
(2)
               SEQUENCE CHARACTERISTICS:
                (A)
                       LENGTH:
                (B)
                       TYPE:
                                      nucleic acid
                       STRANDEDNESS: single
                (C)
                (D)
                       TOPOLOGY:
                                       linear
               SEQUENCE DESCRIPTION: SEQ ID NO:17:
        (xi)
ATCCGCAGGA TTTTCGCACC 20
        INFORMATION FOR SEQ ID NO:18:
(2)
                SEQUENCE CHARACTERISTICS:
        (i)
                (A)
                       LENGTH:
                (B)
                       TYPE:
                                       nucleic acid
                       STRANDEDNESS: single
                (C)
                                       linear
                       TOPOLOGY:
                (D)
                SEQUENCE DESCRIPTION: SEQ ID NO:18:
        (xi)
TGCCAGCGTA AATCCGCAAC 20
        INFORMATION FOR SEQ ID NO:19:
(2)
                SEQUENCE CHARACTERISTICS:
        (i)
                (A)
                       LENGTH:
                                       nucleic acid
                (B)
                        TYPE:
                        STRANDEDNESS: double
                (C)
                                       linear
                        TOPOLOGY:
                (D)
                SEQUENCE DESCRIPTION: SEQ ID NO:19:
        (xi)
GT 2
 (2)
        INFORMATION FOR SEQ ID NO:20:
                SEQUENCE CHARACTERISTICS:
         (i)
                                   2
                (A)
                        LENGTH:
                                       nucleic acid
                (B)
                        TYPE:
                        STRANDEDNESS: double
                (C)
                (D)
                        TOPOLOGY:
                                       linear
                SEQUENCE DESCRIPTION: SEQ ID NO:20:
         (xi)
 TC 2
         INFORMATION FOR SEQ ID NO:21:
 (2)
                SEQUENCE CHARACTERISTICS:
         (i)
                                       3
                        LENGTH:
                 (A)
                                        nucleic acid
                 (B)
                        TYPE:
                        STRANDEDNESS: double
                 (C)
                                        linear
                        TOPOLOGY:
                 (D)
                SEQUENCE DESCRIPTION: SEQ ID NO:21:
         (xi)
 CGG 3
         INFORMATION FOR SEQ ID NO:22:
 (2)
                SEQUENCE CHARACTERISTICS:
         (i)
                        LENGTH:
                 (A)
                        TYPE:
                                        nucleic acid
                 (B)
                        STRANDEDNESS: double
                 (C)
```

linear

(D)

TOPOLOGY:

	(xi)	SEQUENC	E DESCRIPTION:	SEQ ID NO:22:		
GGT 3						
(0)	THEODIE	mrou Por	CEO ID NO.22.			
(2)	INFORMATION FOR SEQ ID NO:23: (i) SEQUENCE CHARACTERISTICS:					
	(1)		LENGTH:	4		
		(B)	TYPE:	nucleic acid		
		(C)	STRANDEDNESS:	double		
		(D)	TOPOLOGY:	linear		
	(xi)	SEQUENC	E DESCRIPTION:	SEQ ID NO:23:		
ATTA 4						
(2)			R SEQ ID NO:24:	-00		
	(i)	-	E CHARACTERIST			
		•	LENGTH:	4		
		• •	TYPE:	nucleic acid		
		• •	STRANDEDNESS:			
		• •		linear		
	(xi)	SEQUENC	E DESCRIPTION:	SEQ 1D NO:24:		
CTGG 4						
(2)	INFORM	ATION FO	R SEQ ID NO:25:			
	(i)	SEQUENC	E CHARACTERIST	ICS:		
	` '	(A)	LENGTH:	259		
		(B)	TYPE:	nucleic acid		
		(C)	STRANDEDNESS:	double		
		(D)	TOPOLOGY:	linear		
	(xi)	SEQUENC	E DESCRIPTION:	SEQ ID NO:25:		
GTTATG	CTT ATO	CCCACGGT	ATTTAATATG GTT	CATTAGG ATGTTTATTT	50	
CTTGAT	TTTG CA	ratgagta	TATTACCCCC CCC	тсааааа аатаааттаа	100	
TTAAAA	rgat gg	CTTATATA	AAATAAAATT TAA	AGCAAGG AATCTCAATG	150	
				TAAATTA TTGACTTCGT		
TTTAGA'	TTTG TT	FAGCTATA	ATGTTATACA TTC	AAATGAC TGAACATCCT		
GTAATT	AAA				259	
(0)	TNEODY	ermiton PO	R SEQ ID NO:26:			
(2)	(i)		CE CHARACTERIST			
	(1)		LENGTH:	256		
		1/	TYPE:	nucleic acid		
			STRANDEDNESS:			
			TOPOLOGY:	linear		
	(xi)		CE DESCRIPTION:			
TTGTTA				TTCATTT GGATGTTCAT	50	
				САААААА ТАААТТААТТ	100	
				CAAGGAA TCTCAATGGA	150	
				AATTATT CACTTCGTTT	200	
				ATGACTG AACATCCTGT	250	
ATTTAA					256	
(2)	INFOR		OR SEQ ID NO:27			
	(i)	~	CE CHARACTERIST			
		(A)	LENGTH:	257		
		(B)	TYPE:	nucleic acid		
			STRANDEDNESS:			
	(13		TOPOLOGY:			
monace	(xi)			SEQ ID NO:27: AGTTCATT TGGATGTTCA	50	
TITGIT	AIGT CI	IAICCCAC	. GGIMILIAMI AIA	AUTICALI IGGALGIICA	50	

TTTCTTTATT TTGCATATGA GTATATTACC CCTTCAAAAA ATAAATTAAT 100 TAAAACGATT GCTTATATAA AACAAAATTT AAAGCAAGGA ATCTCAATGG 150 ATGTTAAACA AAATGAGATT TAGTGAAAAC AATAAATTAT TCACTTCGTT 200 TTAGATTTGT TTAGCTATAA TGTTATACAT TCAAATGACT GAACATCCTG 250 257 TAATTAA INFORMATION FOR SEQ ID NO:28: (2) SEQUENCE CHARACTERISTICS: (A) LENGTH: nucleic acid TYPE: (B) STRANDEDNESS: double (C) TOPOLOGY: linear (D) SEQUENCE DESCRIPTION: SEQ ID NO:28: (xi) TCTATGTTCT TATCNCCACG GTXTTTAATA TGGTTCATTA GGATGTTTAT TTCTTGATTT TGCATATGAG TATATTACCC CCCCCCTCA AAAAAATAAA 100 TTAATTAAAA TGATGGCTTA TATXAAATAX AATTTAAAGC AAGGAXTCTC 150 AATGGATGTT AAACAXAATG AGATTTTGTG AAXGCXATXX ATTATTGXCT 200 TCGTTGTAXA TTTGCTXAGC TATAATGTTA TXCATTCAAA TGACTGAACA 250 263 TCCTGTXXTT AXA INFORMATION FOR SEQ ID NO:29: (2) SEQUENCE CHARACTERISTICS: LENGTH: 264 (A) nucleic acid (B) TYPE: STRANDEDNESS: double (C) linear (D) TOPOLOGY: SEQUENCE DESCRIPTION: SEQ ID NO:29: XXXXXTXTXX XTXXXCCCAC GGTATTTAAT ATXGTTCATT XGGATGTTXA TTTCTTXATT TTGCATATGA GTATATTAXX XXXXCCCCTX XAAAAAATAA 100 ATTAATTAAA AXGATXGCTT ATATAAAAXA AAATTTAAAG CAAGGAATCT 150 CAATGGATGT TAAACAAAAT GAGATTTXGT GAAAXCAATA AATTATTXAC 200 TTCGTTXTAG ATTTGXTTAG CTATAATGTT ATACATTCAA ATGACTGAAC 250 ATCCTGTAAT TAAX 264 INFORMATION FOR SEQ ID NO:30: SEQUENCE CHARACTERISTICS: LENGTH: (A) nucleic acid (B) TYPE: (C) STRANDEDNESS: double (D) TOPOLOGY: linear SEQUENCE DESCRIPTION: SEQ ID NO:30: (xi) TTTXCCCGGA AAAAATAGG AAAGGGGGGG GGGCTAATCG GCAGGGAAGG CCGCCCCGGA TAGCGGCCG CAXAAGGAAT CAXAATTTCC AGGTCAGACG 100 GGCTGCAAGT TGCAGACCGT TAAAATCATC GGXXGGGGTG TCGTACCACA 150 181 CTTTACCTGC CGTCAGCCCG AGATTAAGTT G INFORMATION FOR SEQ ID NO:31: (2) SEQUENCE CHARACTERISTICS: (i) (A) LENGTH: 181 (B) TYPE: nucleic acid STRANDEDNESS: double (C) linear TOPOLOGY: {D} SEQUENCE DESCRIPTION: SEQ ID NO:31: TXTTXXXCGG AAAAAATXG AAAGGGGGGG GGGCTAATCG GCAGGGAAGG CCGCCCCGGA TAGCGGGCGG CAGAAGGAAT CAGAATTTCC AGGTCAGACG 100 GGCTGCAAGT TGCAGACCGT TAAAATCATC GGTTGGGGTG TCGTACCACA 150 181 CTTTACCTGC CGTCAGCCCG AGATTAAGTT G

(2) INFORMATION FOR SEQ ID NO:32:				
(i)	SEQUEN	CE CHARACTERISTICS:		
	(A)	LENGTH:	177	
	(B)	TYPE:	nucleic acid	
	(C)	STRANDEDNESS:	double	
	(D)	TOPOLOGY:	linear	
(xi	· -	CE DESCRIPTION:		
			CGGCAG GGAAGGCCGC	50
			CCAGGT CAGATGGGCT	
			STGTCGT ACCACACTTT	
ACCIGCEGIC	AGCCCGAGAT	TAAGTIG		177
(2) INF	ORMATION FO	R SEQ ID NO:33:		
(i)	SEQUEN	CE CHARACTERISTI	ics:	
	(A)	LENGTH:	182	
	(B)	TYPE:	nucleic acid	
	(C)	STRANDEDNESS:	double	
	(D)	TOPOLOGY:	linear	
(xi	.) SEQUEN	CE DESCRIPTION:	SEQ ID NO:33:	
TXTXCGGAAA	AAAAXAGGAA	AGGGGGGGG GCTA	ATCGGC AGGGAAGGCC	50
GCCCCGGATA	GCGGGCGCA	GAAGGAATCA GAAT	TTTCCAG GTCAGACGGG	100
CTGCAAGTTG	CAGACCGTTA	AAATCATCGG TTGC	GGTGTC GTACCACACT	150
TTACCTGCCG	TCAGCCCGAG	ATTAAAGTTT GG		182
, ,		R SEQ ID NO:34:		
(i)	_	CE CHARACTERIST		
	(A)	LENGTH:	175	
	(B)	TYPE:	nucleic acid	
	(C)	STRANDEDNESS:		
	(D)	TOPOLOGY:	linear	
(xi		CE DESCRIPTION:	CAGGGAA GGCCGCCCCG	50
			GTCAGA TGGGCTGCAA	
			CGTACCA CACTTTACCT	150
	CGAGATAAAG			175
(2) IN	FORMATION FO	R SEQ ID NO:35:		
(i)	SEQUEN	CE CHARACTERIST	ICS:	
	(A)	LENGTH:	174	
	(B)	TYPE:	nucleic acid	
	(C)	STRANDEDNESS:	double	
	(D)	TOPOLOGY:	linear	
(x:	i) sequen	CE DESCRIPTION:	SEQ ID NO:35:	
CGGAAAAAAA	TGAAAGGGGG	GGGGCTAATC GGC	AGGGAAG GCCGCCCCGG	50
ATAGCGGGCG	GCAGAAGGAA	TCAGAATTTC CAG	STCAGAT GGGCTGCAAG	100
TTGCAGACCG	TTATAATCAT	CGGTTGGGGT GTC	STACCAC ACTITACCTG	150
CCGTCAGCCC	_ GAGATAAAGT	TTGG		174
(0) TIM	TODAY DION	OR SEQ ID NO:36:		
(2) INI (i)			rce.	
(1)	SEQUEN (A)	CE CHARACTERIST: LENGTH:	182	
			nucleic acid	
	(C)	STRANDEDNESS:		
	(D)		linear	
(v		CE DESCRIPTION:		
· ·			CTAATCG GCAGGGAAGG	50
			AATTTCC AGGTCAGAXG	
			rgggtg tcgtaccaca	

CTTTACCTGC CGTCAGCCCG AGATXAAGTT XG

182

(2)	INFORMA	ATION FOR SEQ ID NO:37:		
	(i)	SEQUEN	CE CHARACTERIST	CS:
		(A)	LENGTH:	8
		(B)	TYPE:	nucleic acid
		(C)	STRANDEDNESS:	single
		(D)	TOPOLOGY:	linear
	(xi)	SEQUENC	CE DESCRIPTION:	SEQ ID NO:37:
GGGGGG	G 8			
(2)	INFORMA	TION FO	R SEQ ID NO:38:	
	(i)	SEQUEN	CE CHARACTERIST	CS:
		(A)	LENGTH:	9
		(B)	TYPE:	nucleic acid
		(C)	STRANDEDNESS:	single
		(D)	TOPOLOGY:	linear
	(xi)	SEQUEN	CE DESCRIPTION:	SEQ ID NO:38:
GGGGGGGGG 9				
(2)	INFORMA		R SEQ ID NO:39:	
	(i)		CE CHARACTERIST	ICS:
		(A)	LENGTH:	10
		(B)	TYPE:	nucleic acid
		(C)	STRANDEDNESS:	-
		(D)	TOPOLOGY:	linear
	(xi)	SEQUEN	CE DESCRIPTION:	SEQ ID NO:39:
GGGGGG	GGG 10			
(2)	THEODMY	TON EO	R SEQ ID NO:40:	
(2)	(i)		R SEQ 1D NO:40: CE CHARACTERIST:	rce.
	(1)	(A)	LENGTH:	A.
		(B)	TYPE:	nucleic acid
		(C)	STRANDEDNESS:	single
		(D)	TOPOLOGY:	linear
	(xi)		CE DESCRIPTION:	
TAAA 4	(211)	DEQUEE	ob bbottlifow.	DDQ ID NO. IV.
(2)	INFORMA	MATION FOR SEQ ID NO:41:		
	(i)	SEQUEN	ICS:	
		(A)	LENGTH:	4
		(B)	TYPE:	nucleic acid
		(C)	STRANDEDNESS:	single
		(D)	TOPOLOGY:	linear
	(xi)	SEQUEN	CE DESCRIPTION:	SEQ ID NO:41:
TTAA 4				
	سيه			
(2)	INFORM	RMATION FOR SEQ ID NO:42:		
	(í)	SEQUEN	ICS:	
		(A)	LENGTH:	5
		(B)	TYPE:	nucleic acid
		(C)	STRANDEDNESS:	single
		(D)	TOPOLOGY:	linear
	4	anom:	OR PROGRESSMENT	OTO TO NO ::

SEQUENCE DESCRIPTION: SEQ ID NO:42:

TTAAA 5

(xi)